

Serial No. 10/540,244

PU020501

Listing and Amendments to the Claims**RECEIVED
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1. (original) A method of correcting a color characteristic of an image displayed in response to a video signal comprising the steps of:
 - A) processing the video signal for predicting a variation in a physical characteristic of a display device displaying the image;
 - B) processing the video signal for determining a change in the color characteristic occurring in response to the variation in the physical characteristic; and
 - C) modifying the video signal for compensating for the change in the color characteristic.

2. (original) The method of claim 1 wherein the display device comprises a color picture tube and wherein step A comprises the steps of:
 - processing the video signal for predicting a temperature distribution of a mask of the color picture tube; and
 - predicting a change in a location of an aperture of the mask relative to an initial location occurring in response to the temperature distribution.

3. (original) The method of claim 1 wherein the display device comprises a color picture tube and wherein step B comprises the steps of:
 - determining a change in a register characteristic of an electron beam occurring in response to the variation in the physical characteristic; and
 - determining a change in the color characteristic occurring in response to the change in the register characteristic.

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4. (original) The method of claim 2 wherein step B comprises the steps of:
determining a change in a register characteristic of an electron beam occurring in response to the change in the location of the aperture in the mask; and
determining a change in the color characteristic occurring in response to the change in the register characteristic.
5. (previously presented) The method of claim 2 wherein the step of determining the temperature distribution comprises the steps of
determining the temperature distribution relative to a reference temperature distribution; and
integrating an effect of a current density distribution of a beam current of the color picture tube on the mask over time.
6. (previously presented) The method of claim 3 wherein the step of determining a change in the register characteristic comprises the step of processing the video signal for predicting a space charge repulsion characteristic associated with a plurality of electron beams projected through the mask.
7. (previously presented) The method of claim 1 wherein the step of modifying the video signal comprises the steps of:
determining a change in a beam current of the color picture tube necessary to compensate for the change in the color characteristic; and
modifying the video signal for producing the beam current change.
8. (withdrawn) A method of correcting a color characteristic of an image displayed in response to a video signal comprising the steps of:
processing the video signal for determining a temperature variation of a mask of a color picture tube;
determining in response to the temperature variation a change in a location of an aperture of the mask relative to an initial location;

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determining in response to the change in location of the aperture a change in a register characteristic of an electron beam projected through the aperture in the mask;

determining a change in the color characteristic occurring in response to the change in the register characteristic; and

modifying the video signal for correcting for the change in the color characteristic.

9. (withdrawn) The method of claim 8 wherein the step of determining the change in the register characteristic comprises the step of:

processing the video signal for predicting a space charge repulsion characteristic associated with a plurality of electron beams projected through the mask.

10. (withdrawn) The method of claim 8 wherein the step of modifying the video signal comprises the steps of:

determining a change in a beam current of the color picture tube necessary to compensate for the change in the color characteristic; and

modifying the video signal for producing the beam current change.

11. (original) Apparatus for correcting a color characteristic of an image displayed in response to a video signal comprising:

means for processing a video signal for predicting a variation in a physical characteristic of a display device displaying an image in response to the video signal, and for processing the video signal for determining a change in a color characteristic of the image occurring in response to the variation in the physical characteristic; and

means for modifying the video signal for compensating for the change in the color characteristic.